Natural Flavor Product Questionnaire - National Organic Program (NOP & COR)

The USDA National Organic Program (NOP) and the Canadian Organic Regime (COR) allow the use of certain natural (non-synthetic) substances, including flavors, in products labeled as “Organic” or “Made with Organic”/70-95% Organic providing they comply with provisions established in the USDA NOP (7 CFR Part 205) or CAN/CGSB 32.311-2006 (Section 6.4), as applicable.

Non-synthetic (natural) is currently defined in 7 CFR 205.2 and CAN/CGSB 32.310-2006, 3.1 as: a substance that is derived from mineral, plant or animal matter and does not undergo a synthetic process. Under the terms of the Act (7 U.S.C. 6502(21)) and CAN/CGSB 32.210-2006, “synthetic" means a substance that is formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted from naturally occurring plant, animal or mineral sources, except that such term shall not apply to substances created by naturally occurring biological processes.

Non-synthetic Flavors authorized under the NOP, Section 205.605 (a)(9) and under CAN/CGSB 32.311-2006, Section 6.4 must be from non-synthetic sources only and must not be produced using synthetic solvents, carrier systems or any artificial preservative. In addition, Sections 205.105 (e)(f) of the NOP and 1.4.1(a)(h) of CAN/CGSB 32.310-2006 respectively prohibit so-called “excluded” methods (GMOs) and ionizing radiation from being used to produce, or during the handling of any, ingredients or products.

The US FDA Definition of Natural Flavors FDA 21 CFR Part 101.22(a)(3): “… natural flavor or natural flavoring means the essential oil, oleoresin, essence or extractive, protein hydrolysate, distillate, or any product of roasting, heating or enzymolysis, which contains the flavoring constituents derived from a spice, fruit or fruit juice, vegetable or vegetable juice, edible yeast, herb, bark, bud, root, leaf or similar plant material, meat, seafood, poultry, eggs, dairy products, or fermentation products thereof, whose significant function in food is flavoring rather than nutritional. Natural flavors include [but not exclusively] the natural essences or extractives obtained from plants listed in §§182.10, 182.20, 182.40, and 182.50 and part 184 of this chapter, and the substances listed in §172.510 of this chapter.”

The Canadian Food Inspection Agency (CFIA) Definition of Natural Flavours and Flavour Descriptors CFIA Guide to Food Labelling and Advertising, Chapter 4: “…Flavour descriptors: Substances which impart flavours which have been derived from a plant or animal source, may be claimed to be “natural”. As well, any additive, such as preservatives and solvents added to a flavour preparation to have a technological effect solely on the flavour, does not modify the “natural” status of the flavouring material itself.

In order to approve the use of a natural flavor used in an “organic” or “made with” (70-95%) product, QAI requests the information below in order to determine compliance under the terms of the NOP or COR, as applicable. QAI may request additional information as needed.

Identification of Natural Flavor Product (Name/code):  Damascenone (Fermentone) 1% in ETOH, Natural  Code: 0342001

Supplier Name and Address:  Aurochemicals 7 Nicoll Street Washingtonville NY 10992

Type of flavor (select one or more as necessary):

<table>
<thead>
<tr>
<th></th>
<th>Protein Hydrolysate</th>
<th>Extracts</th>
<th>Essential oil</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Compounded flavor</td>
<td>Oleoresin</td>
<td>Isolate</td>
</tr>
<tr>
<td></td>
<td>Distillate</td>
<td>Compounded WONF</td>
<td>Other (describe) reaction</td>
</tr>
</tbody>
</table>

Natural Flavor Product

A. Flavor constituents  **NOTE:** Flavors are products that are added to food to impart, modify, or enhance the flavor of food. Flavors do not include: 1) flavor enhancers; and 2) substances that have an exclusively sweet, sour, or salty taste (e.g. sugar, nutritive sweeteners, vinegar, and table salt).

1. Do all of the flavor constituents in the natural flavor product named above comply with the following criteria?
   1(a). Does the material meet FDA or, if in Canada, the CFIA definition of natural flavor?  Yes  No
   1(b). Can the material legally be labeled as a “natural flavor” per FDA/CFIA?  Yes  No
   1(c). Is the material only used for flavoring purposes (no nutritional use or other functions)  Yes  No
   1(d). Will the material be listed as a natural flavor on the finished product labels?  Yes  No
2. **Natural flavors** authorized for use in NOP or COR “organic” or “made with organic” (70-95%) products, in addition, must not be produced using **synthetic extraction solvents**. Extraction may only use natural, non-petroleum based solvents. Is/are the natural flavor constituent(s) made using NOP or COR-suitable extraction solvents?*

☐ Yes  ☐ No  ☒ N/A, no extraction solvents used.

Please list any solvent(s) used in the production of this Natural Flavor Product. If alcohol/ethanol is used, please indicate whether it is produced naturally (via fermentation):

_____________________________________________________________ ☒ N/A, no solvents used.

*Allowed natural extraction solvents include water, natural ethanol, super-critical carbon dioxide, authentic essential oil, and natural vegetable oils. No hydrocarbon solvents, or chlorinated, or halogenated solvents may be used. Propane, hexane, and freon are examples of solvents that are prohibited. Triglycerides are also prohibited.

**B. Non-flavor constituents and other ingredients**

**Natural flavors** authorized for use in NOP or COR “organic” or “made with organic” (70-95%) products must not contain any **synthetic carrier systems** or any **artificial preservatives**, including but not limited to, propylene glycol, polyglycerol esters of fatty acids, mono-, di-, and tri-glycerides, benzoic acid, polysorbate 80.

☐ Please list any carrier system(s) used in this Natural Flavor Product or attach an Ingredient Statement:
   Natural Ethanol _______________________________________ ☒ N/A, no carrier system(s) used.

☐ Please list any preservative(s) used in this Natural Flavor Product or attach an Ingredient Statement:
   ________________________________________________________ ☒ N/A, no preservative(s) used.

**C. Additional Information**

☐ If *glycerin* is used as a carrier or solvent, is it produced by hydrolysis of fats and oils?
   ☐ Yes  ☐ No  ☒ N/A, no glycerin used

☐ If *maltodextrin* is used as a carrier, please attach confirmation from the supplier/manufacturer that enzymes are primarily responsible for the hydrolysis. Attached: ☒

☐ If *citric acid* is used as a preservative, is it produced via fermentation of carbohydrates?
   ☐ Yes  ☐ No  ☒ N/A, no citric acid used

Please note that QAI reserves the right to require additional information in order to assess whether or not a preservative, carrier or solvent is synthetically produced.

**D. Genetically Modified Organism (GMO)** products may not be used at any stage in the process of making natural flavor products for NOP goods. **Excluded methods** (= GMO use) include a variety of methods used to genetically modify organisms or influence their growth and development by means that are not possible under natural conditions or processes and are not considered compatible with organic production. Such methods include, but are not limited to, recombinant DNA technology (including gene deletion, gene doubling, introduction of a foreign gene, and changing the positions of genes when achieved by recombinant DNA technology); therefore, GMO-plant extracts may not be used nor may natural flavors be the product of GMO-yeast fermentation.
This natural flavor product, including any solvents, carriers, preservatives or other processing aids used or contained therein, was produced and handled without the use of excluded (GMO) methods?  ☑ Yes  ☐ No

E. Ionizing Radiation is prohibited for all uses involving food preservation, pest control and pathogen control in NOP products. Other radiation uses, including food inspection, are permitted providing such use meets applicable US and Canadian FDA regulations, which establish limitations applicable to all (organic and non-organic) food products.

Ionizing radiation as described in 21 CFR 179.26(US) and Canadian Food and Drug Regulations, Division 26, B.26.001(a-c)(Canada) was not used in the processing of this natural flavor product?  ☑ Yes  ☐ No

Please sign this questionnaire below

Pursuant to 7CFR §205.605(a)(9) and §205.105(e)(f) (NOP) and/or CAN/CGSB 32.311-2006, 6.4 and CAN/CGSB 32.310-2006, 1.4.1(a)(h) (COR), I, on behalf of the supplier, hereby attest that the information provided in this form is accurate and truthful to the best of my knowledge.

Company Name: Aurochemicals

Printed Name: Deo Persaud

Title: Vice President

Signature: [Signature]

Date: October 7, 2019